

iDMU integrated Data Management Unit for Regional and Business Aircraft



Integrated Acquisition, Processing and Recording for Business and Commuter Aircraft

The iDMU (integrated Data Management Unit) for Regional and Business Aviation Aircraft is a powerful data management system that provides ACMS (Aircraft Condition Monitoring System) and recording capabilities in one light and compact unit. Designed to meet the extensive data monitoring requirements of new generation digital aircraft, the iDMU interfaces with the integrated avionics suite to collect data from multiple sources.

Multi-Function Unit

Featuring an enhanced ACMS function, the iDMU enables faster data processing and increased throughput, therefore facilitating both aircraft/engine health monitoring and daily flight operations monitoring. The iDMU also integrates a data recording function via PC Card media for QAR/DAR and message data recording, as well as optional Ethernet capability for high-speed data connectivity with Ethernet-based systems, such as Electronic Flight Bags (EFBs), wireless communication systems and data loaders.

Flexible ACMS Capability

Like all other Teledyne airborne avionics systems, the iDMU is fully user-programmable via Teledyne's MS Windows-based Application Generation Software (AGS). This sophisticated tool allows operators to easily customize the various elements of their ACMS applications, such as QAR/DAR output data maps, MCDU screens and enhanced ACMS reports.

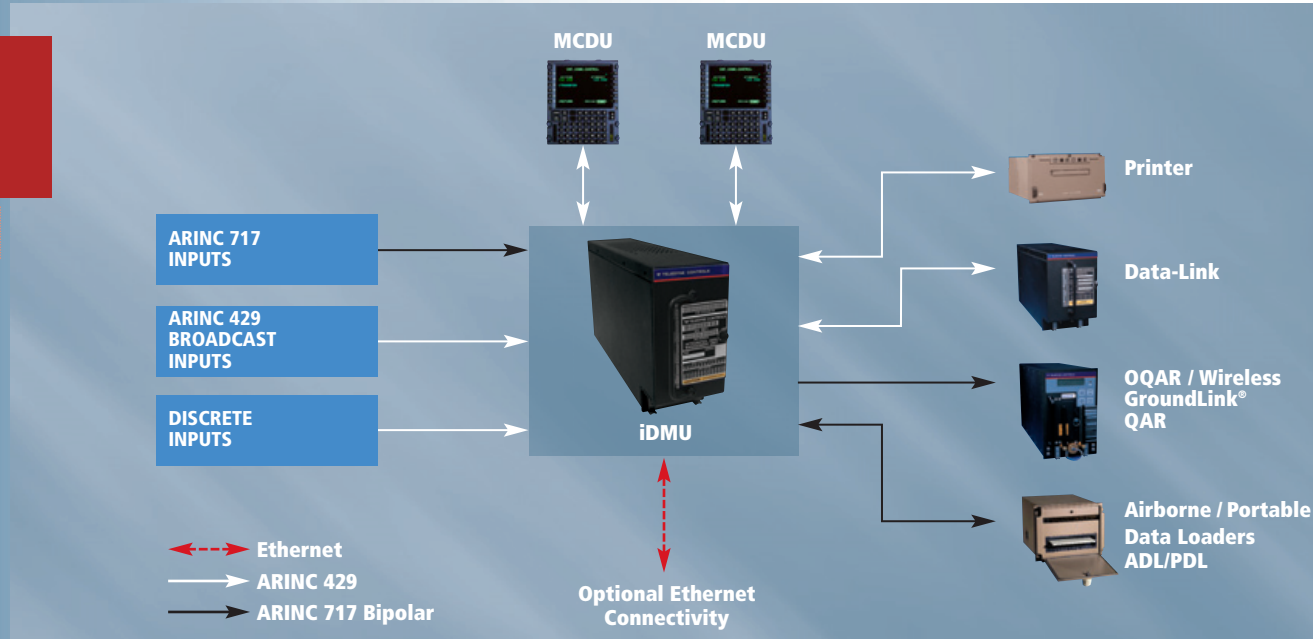
Teledyne's iDMU is certified on the Embraer 175 and 190 aircraft and is available for both retrofit and forward fit installations, on these and other regional aircraft.



KEY BENEFITS AND FEATURES

- ACMS and recording capabilities in one standalone unit
- Enhanced processor allows for faster data processing
- Optional 1024 words per second expanded data map
- Fully user-programmable ACMS interface via Teledyne's AGS software tool *(for more information, please consult our AGS data sheet)*

System Diagram



ACMS REPORTING

The iDMU is delivered with a set of standard ACMS reports including:

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|------------------------|-------------------------|--------------------|--------------------|
| ■ Engine Start | ■ Landing | ■ Stable Cruise | ■ Limit Exceedance |
| ■ Engine Aborted Start | ■ In-flight Engine Fail | ■ Flight Summary | ■ Turbulence |
| ■ Engine Performance | ■ Take-off | ■ Weather/Position | |

Additional reporting capabilities can be programmed by Teledyne or the aircraft operator.

A few examples of advanced reports are provided below:

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|----------------------------|---------------------------------|------------------------------------|-------------------------------------|
| ■ Turbulence Inspection | ■ Maintenance Report | ■ Flight Control | ■ Aircraft Stable Frame |
| ■ Engine Oil Monitoring | ■ EGT Divergence | ■ Aborted Take-off | ■ Max Operating Altitude Exceedance |
| ■ Ground Run-up | ■ Go-around Landing | ■ Flap/Slat at Altitude Exceedance | ■ Touch and Go Landing |
| ■ Maximum MACH Exceedances | ■ Flap Placard Speed Exceedance | ■ Engine Trend | |
| ■ Overweight Inspection | ■ Gear Down Speed Exceedance | | |

TECHNICAL CHARACTERISTICS

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|---------------------------------|--------------------|
| ■ Power Consumption: < 32 watts | ■ Enclosure: 3 MCU |
| ■ Connector: ARINC 600 Standard | ■ Weight: < 10 lbs |

SOLUTIONS FOR A CONNECTED AIRCRAFT

The iDMU is an integral part of Teledyne Controls' complete "Connected Aircraft" solution, which consists of bridging traditional avionics equipment with new Ethernet-based systems. By integrating a wide range of products that support both traditional ARINC 429 and TCP/IP interfaces, Teledyne's "Connected Aircraft" facilitates connectivity both onboard the aircraft, and between the aircraft and the airline's corporate network.

